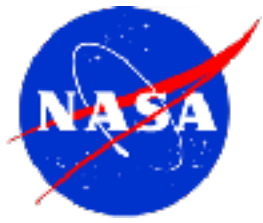


# JWST Update

Astrophysics Advisory Committee  
13-October-2021

Eric P. Smith  
JWST Program Scientist  
Astrophysics Division Chief Scientist



# Completed Observatory

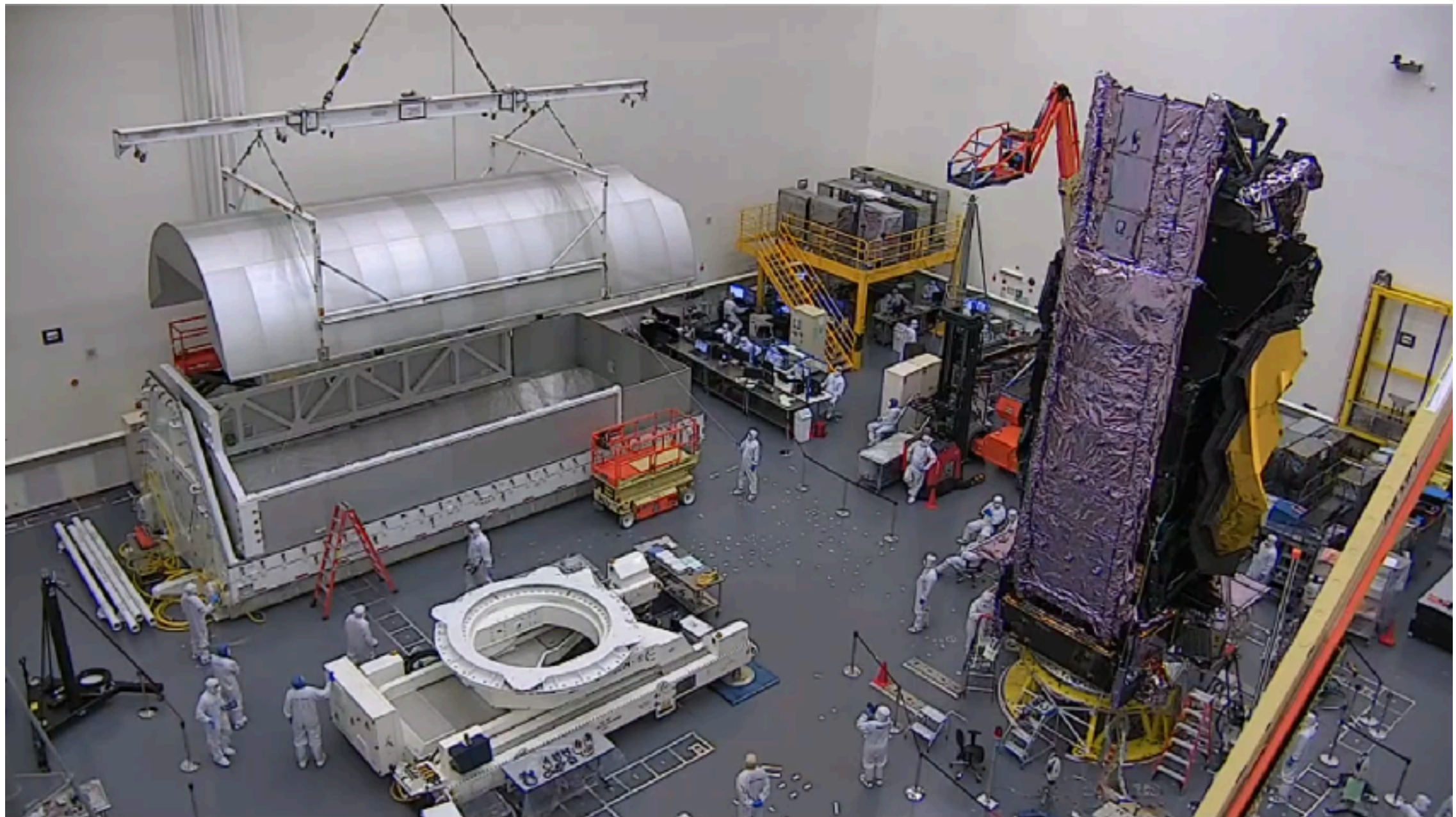
Webb in launch configuration at  
the Northrop Grumman Space  
Park clean room prior to  
shipping





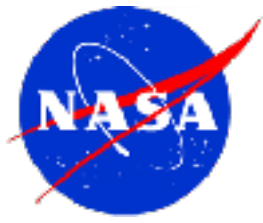


# Getting Ready to Ship



Shipping container, roll-over fixture and Webb at Northrop Grumman





# Other Perspectives



**Aft-Flap walkout**



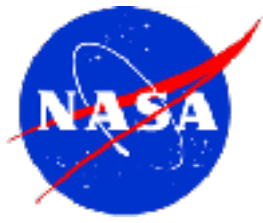
# STScI Webb Status

## Science & Operations Center (S&OC) Status

- All Observatory control, science planning and science data processing operational systems are complete
- S&OC subsystems have been and will continue to be used to support Observatory integration and test
- Ground Segment “soft” system freeze currently in effect
  - “Hard” freeze (exemptions approved by Project Manager) starting October

## Testing and Exercises

- Space Network & DNS RF compatibility completed July 28
- Last commanding between the Mission Operation Center (MOC) and the Spacecraft on the ground prior to launch has occurred
  - Practice, practice, practice of the day of launch communications between and among the MOC, bMOC, DSN, TDRS and ESA’s Malindi ground station
    - Launch Readiness Rehearsals (launch and commissioning) and Normal Operations rehearsals are in full swing

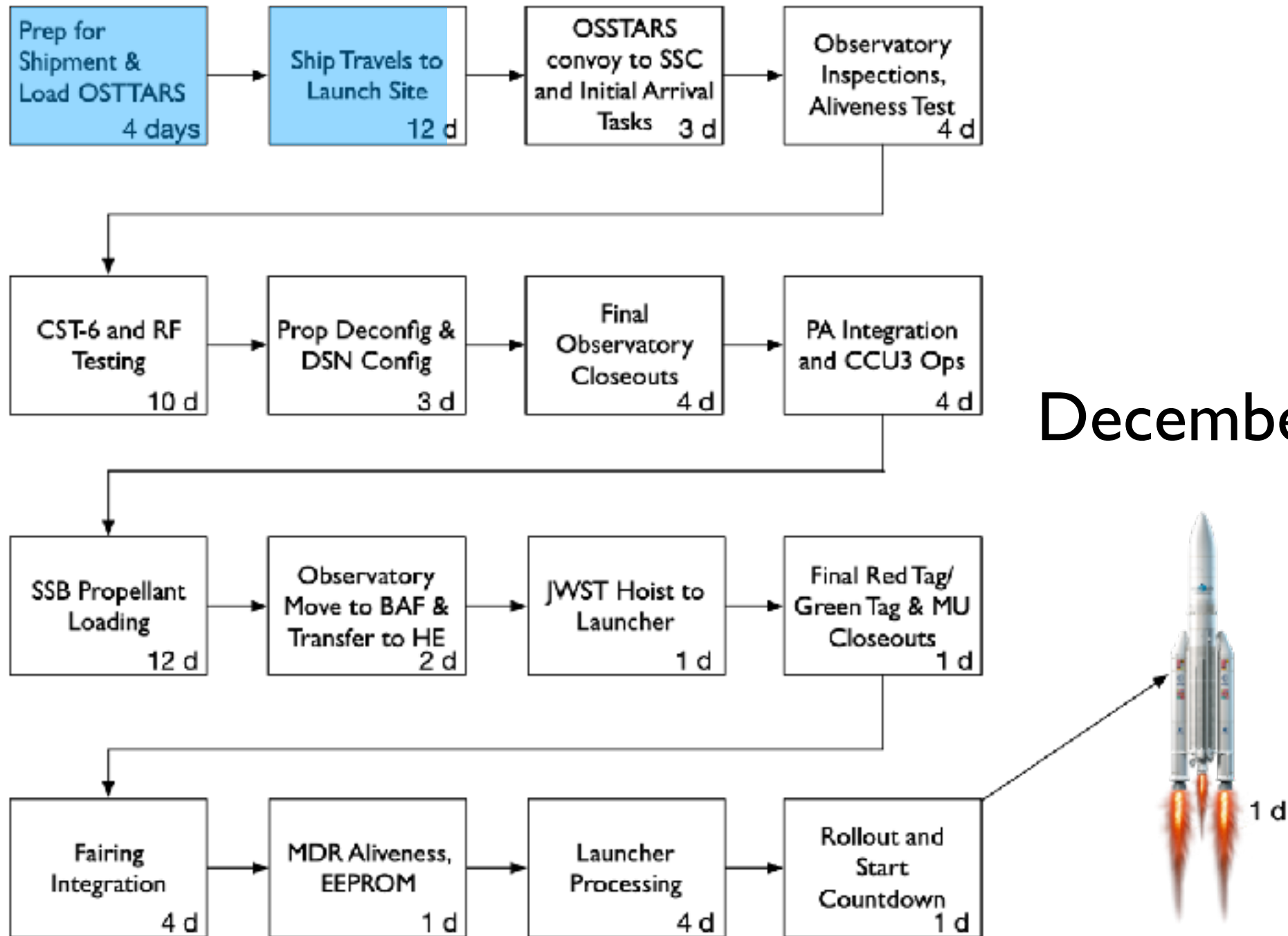


# “The Launch Boat”





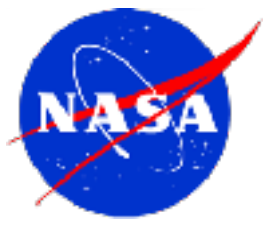
# Activities to Launch



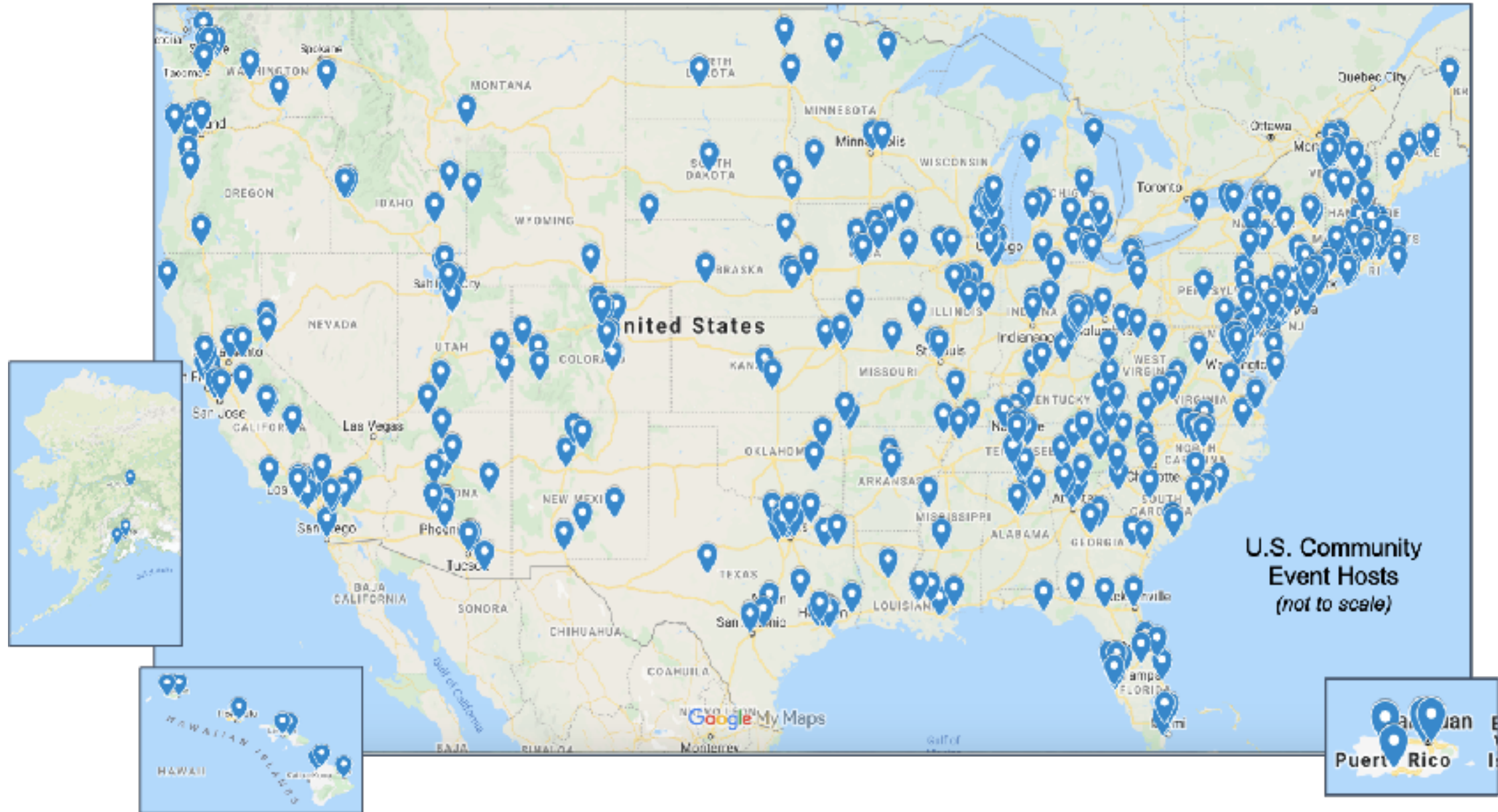
December 18, 2021







# Webb Community Events

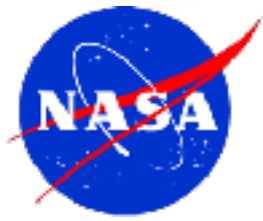


470 host sites in all 50 states

Events run from September to January

Locally run, but NASA provides expert speakers and materials upon request





# Media Events

L-60

## Arrival

- Begin the drumbeat toward launch when observatory arrives in Kourou

L-3 to L-0

## Final Briefings and Launch

- Final pre-launch build-up from Kourou (and Goddard and STScI)
- Working with ESA and Arianespace on final timing

L-29 to L+200

## Preparing for a new view of the Universe

- Bring the public along for the journey
- Provide transparency but respect for work of Mission Ops team



L-30

## Science Briefings

- Two in-depth science briefings to excite public
- 1 – Broad Science Goals and ERO plan
- 2 – Targeted details and four instrument teams

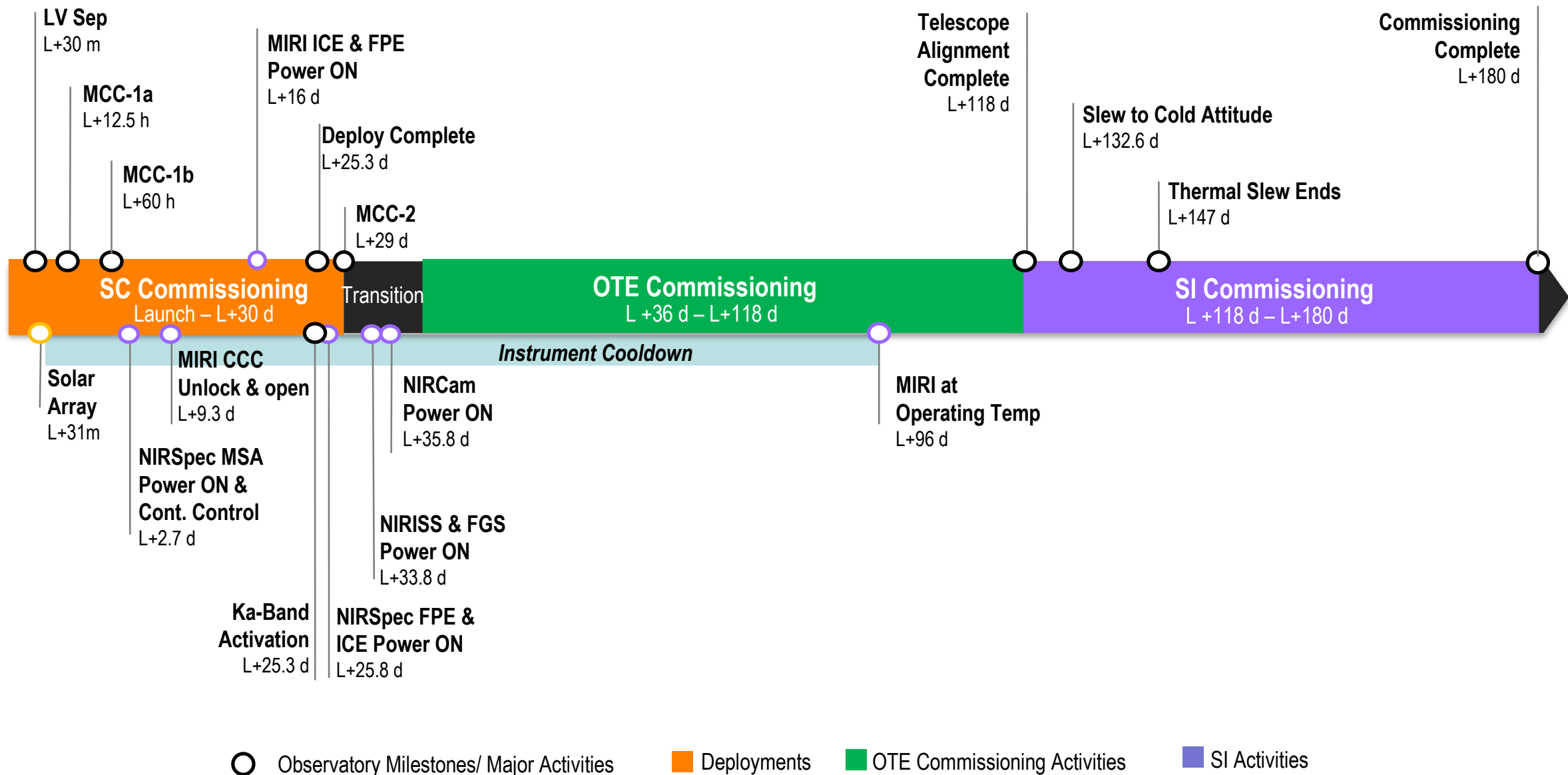
L-0 to L+29

## Unfolding and Journey to L2

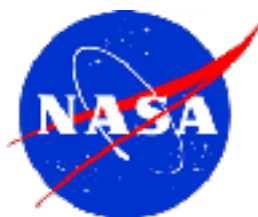
- Bring the public along for the journey
- Provide transparency but respect for work of Mission Ops team



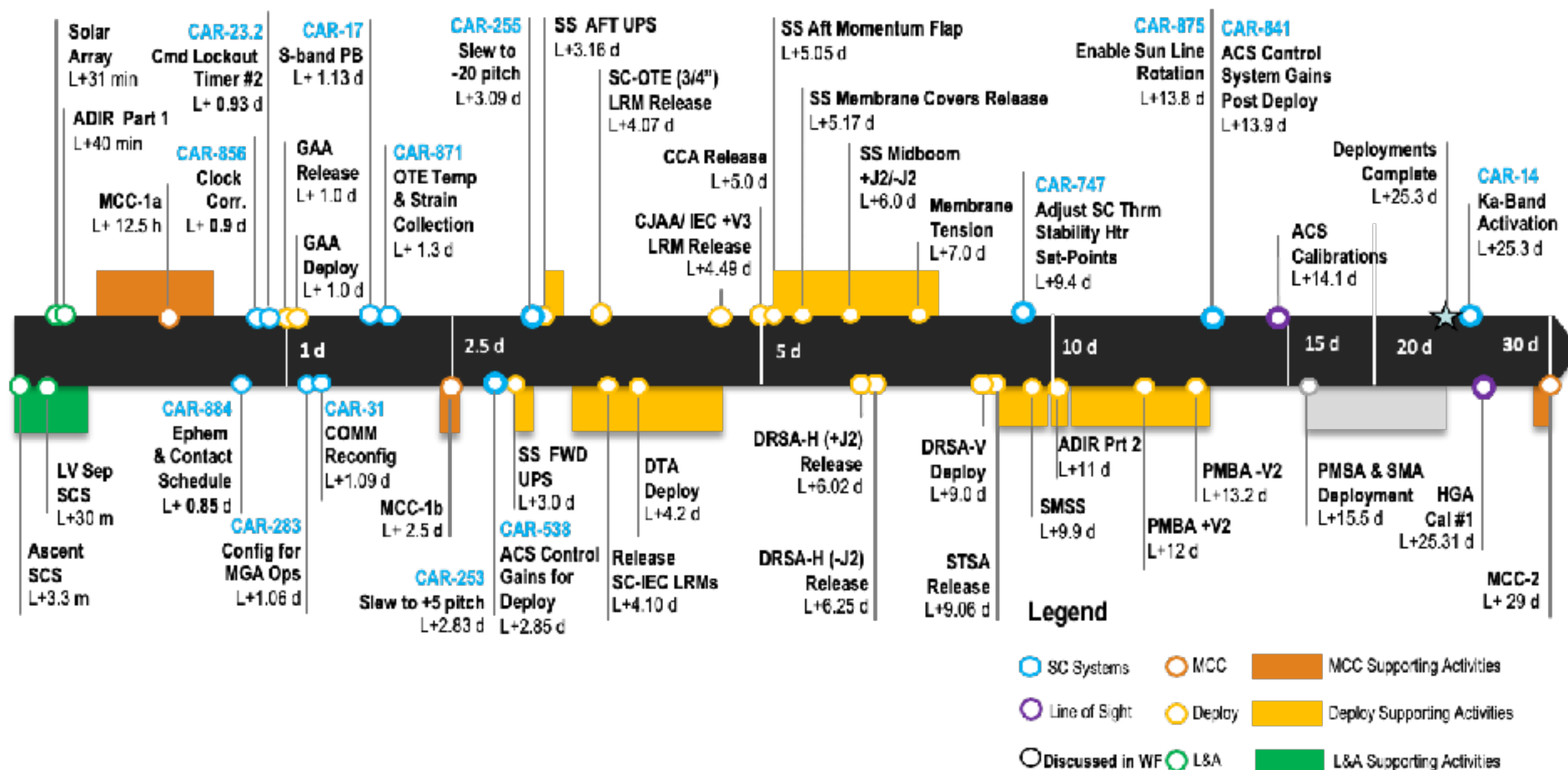
# Commissioning

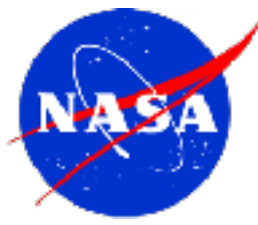




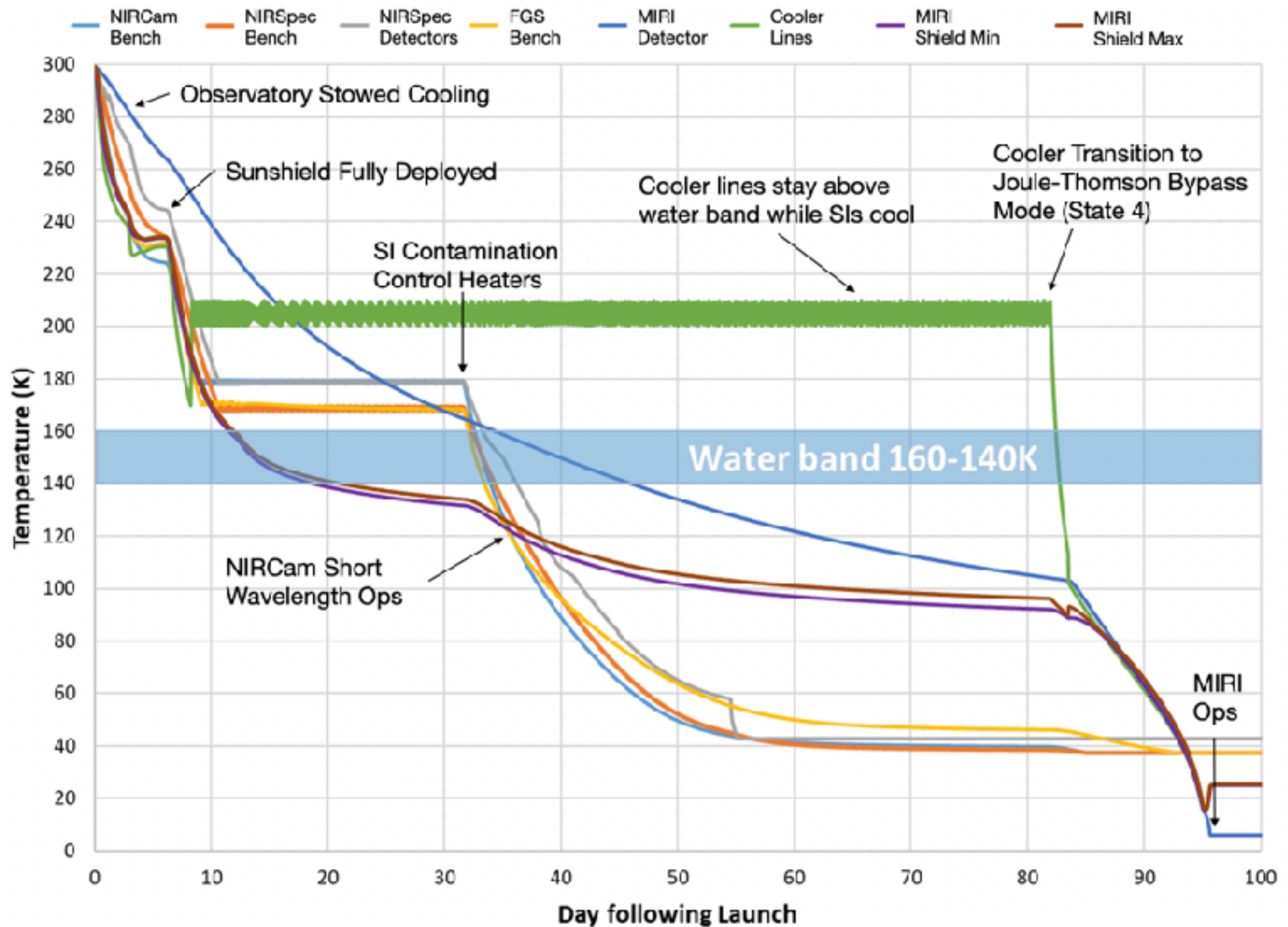


# Spacecraft Comm.

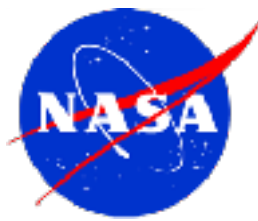




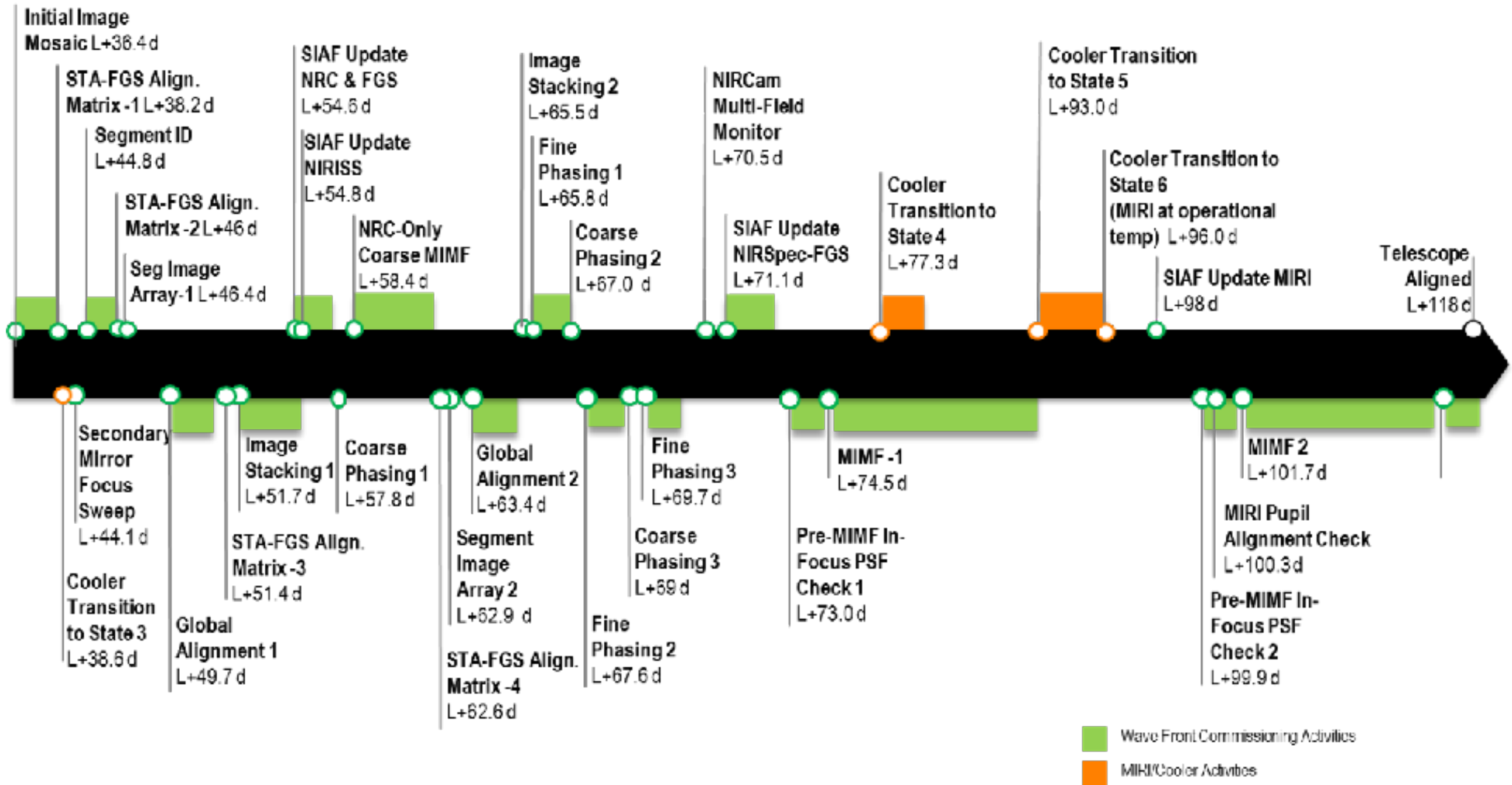
# Cooling Drives Commissioning





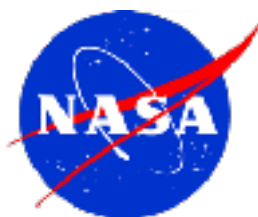




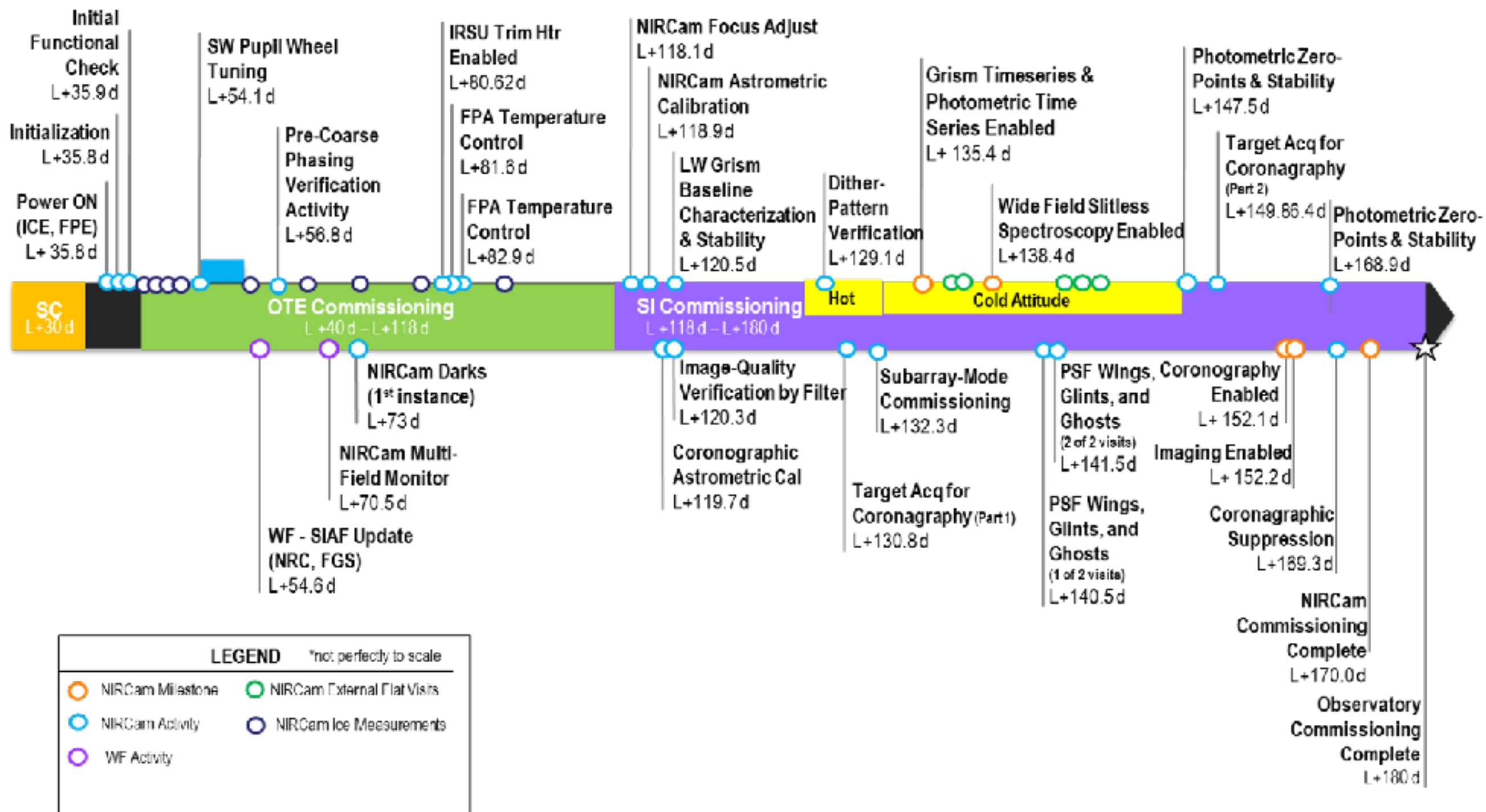
# Telescope Comm.



 Wave Front Commissioning Activities  
 MIRI/Cooler Activities



# NIRCam



LEGEND	
○ NIRCcam Milestone	○ NIRCcam External Flat Visits
○ NIRCcam Activity	○ NIRCcam Ice Measurements
○ WF Activity	

*\*not perfectly to scale*